

AMENDMENTS TO THE CLAIMS:

Kindly amend claims 1, 4 and 14, as shown below.

This listing of claims will replace all prior versions and listings of claims in the Application.

Claim 1 (currently amended): A magnetic signal transmission line comprising a substrate having a main surface, and a plurality of single-magnetization domains separated from one another and arranged in a one-dimensional array on said main surface, each of said single-magnetization domains having a magnetization, whereby a signal is transferred along said one-dimensional array by a change of said magnetization.

Claim 2 (original): The magnetic signal transmission line as defined in claim 1, wherein said single-magnetization domain is formed in a magnetic material having a spontaneous magnetization.

Claim 3 (original): The magnetic signal transmission line as defined in claim 2, wherein said magnetic material is a ferromagnetic substance.

Claim 4 (currently amended): The magnetic signal transmission line as defined in claim 1, wherein an interactive energy acting between dipoles in adjacent two of said single-magnetization domains in terms of [[the]] absolute temperature is larger than an operational ambient temperature.

Claim 5 (original): The magnetic signal transmission line as defined in claim 1, wherein each of said single-magnetization domains has an easy axis which is parallel to said main surface.

Claim 6 (original): The magnetic signal transmission line as defined in claim 5 wherein said easy axis is parallel to a direction of said one-dimensional array.

HAYES SOLOWAY P.C.
3450 E. SUNRISE DRIVE,
SUITE 140
TUCSON, AZ 85718
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

Claim 7 (original): The magnetic signal transmission line as defined in claim 5, wherein said easy axis is perpendicular to a direction of said one-dimensional array.

Claim 8 (original): The magnetic signal transmission line as defined in claim 1, wherein each of said single-magnetization domains has a height smaller than both a width and a length thereof.

Claim 9 (original): The magnetic signal transmission line as defined in claim 1, wherein each of said single-magnetization domains has a width equal to or larger than a length thereof.

Claim 10 (original): The magnetic signal transmission line as defined in claim 1, wherein each of said single-magnetization domains is separated from an adjacent one of said single-magnetization domains with a space disposed therebetween.

Claim 11 (original): The magnetic signal transmission line as defined in claim 1, wherein each of said single-magnetization domains is distributed as a part of a continuous unit of the magnetic signal transmission line.

Claim 12 (original): The magnetic signal transmission line as defined in claim 1, wherein said single-magnetization domains are arranged periodically in said one-dimensional array.

Claim 13 (original): The magnetic signal transmission line as defined in claim 1, wherein each of said single-magnetization domains has an anisotropic energy which resides between zero and 120% of interactive energy acting between dipoles in adjacent two of said single-magnetization domains.

Claim 14 (currently amended): A method for transmitting a signal by using a one dimensional array of a plurality of single-magnetization domains, said method comprising the steps of applying a magnetic field to at least one of the single-magnetization domains to cause a change of magnetization therein, and detecting a magnetization of another of said single-

magnetization domains[[.]], wherein each of said single-magnetization domains are separated from one another.

Claim 15 (original): The method as defined in claim 14, wherein said change of magnetization includes a change of direction of a spontaneous magnetization.

Claim 16 (original): The method as defined in claim 14, wherein said change of magnetization is transferred as a solitary wave.

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